AFIN3029

Derivative Instruments

Session 1, In person-scheduled-weekday, North Ryde 2022

Department of Applied Finance

Contents

General Information	2
Learning Outcomes	2
General Assessment Information	3
Assessment Tasks	3
Delivery and Resources	5
Unit Schedule	5
Policies and Procedures	5

Disclaimer

Macquarie University has taken all reasonable measures to ensure the information in this publication is accurate and up-to-date. However, the information may change or become out-dated as a result of change in University policies, procedures or rules. The University reserves the right to make changes to any information in this publication without notice. Users of this publication are advised to check the website version of this publication [or the relevant faculty or department] before acting on any information in this publication.

General Information

Unit convenor and teaching staff Unit Convenor Wei Cui wei.cui@mq.edu.au To be announced in iLearn Lei Shi l.shi@mq.edu.au
Credit points 10
Prerequisites 20cp at 2000 level including ((AFIN252 or AFIN2050) and (AFIN270 or AFIN2070 or STAT272 or STAT2372))
Corequisites
Co-badged status
Unit description This unit explores the characteristics and pricing of derivatives. The importance of the principles of hedging and arbitrage in derivative pricing, is considered. Derivatives investigated include forwards, futures, options and various structured products. In particular, the unit covers non-standard securities and numerical methods.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at https://www.mq.edu.au/study/calendar-of-dates

Learning Outcomes

On successful completion of this unit, you will be able to:

ULO1: Examine the concepts of option pricing theory and the role of derivatives.

ULO2: Apply financial derivatives such as forward/futures and options to solve quantitative problems.

ULO3: Develop skills to price options and other derivatives.

ULO4: Examine the principles of hedging, arbitrage theory and structured products.

General Assessment Information

Late submissions of assessments

Unless a Special Consideration request has been submitted and approved, no extensions will be granted. There will be a deduction of 10% of the total available assessment-task marks made from the total awarded mark for each 24-hour period or part thereof that the submission is late. Late submissions will only be accepted up to 96 hours after the due date and time.

No late submissions will be accepted for timed assessments – e.g., quizzes, online tests.

Table 1: Penalty calculation based on submission time

Submission time after the due date (including weekends)	Penalty (% of available assessment task mark)	Example: for a non-timed assessment task marked out of 30
< 24 hours	10%	10% x 30 marks = 3-mark deduction
24-48 hours	20%	20% x 30 marks = 6-mark deduction
48-72 hours	30%	30% x 30 marks = 9-mark deduction
72-96 hours	40%	40% x 30 marks = 12-mark deduction
> 96 hours	100%	Assignment won't be accepted

Other assessment criteria for assessment tasks will be provided on the unit iLearn site.

Assessment Tasks

Name	Weighting	Hurdle	Due
Online Quiz	5%	No	Week 3
Mid Session Test	35%	No	Week 7
Final Examination	60%	No	University Examination Period

Online Quiz

Assessment Type [1]: Quiz/Test
Indicative Time on Task [2]: 1 hours
Due: **Week 3**
Weighting: **5%**

The online quiz will consist of 10-15 questions and will be available on iLearn. Please use the quiz result as an indicator of whether you are progressing satisfactorily in the unit.

On successful completion you will be able to:

- Examine the concepts of option pricing theory and the role of derivatives.

Mid Session Test

Assessment Type [1]: Quiz/Test
Indicative Time on Task [2]: 20 hours
Due: **Week 7**
Weighting: **35%**

A mid session test of 90 minutes will be held to give students practice on a summative task and to provide feedback on their progress midway through the session.

On successful completion you will be able to:

- Examine the concepts of option pricing theory and the role of derivatives.
- Develop skills to price options and other derivatives.
- Examine the principles of hedging, arbitrage theory and structured products.

Final Examination

Assessment Type [1]: Examination
Indicative Time on Task [2]: 30 hours
Due: **University Examination Period**
Weighting: **60%**

A two hour final exam will be held during the University Examination Period.

On successful completion you will be able to:

- Examine the concepts of option pricing theory and the role of derivatives.
- Apply financial derivatives such as forward/futures and options to solve quantitative problems.
- Develop skills to price options and other derivatives.
- Examine the principles of hedging, arbitrage theory and structured products.

---

[1] If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- the Writing Centre for academic skills support.

[2] Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

Delivery and Resources

Learning and Teaching Activities	The content for each week will comprise of a lecture recording and a set of tutorial questions (Problem Sets). **Lectures** A lecture recording will be uploaded each week. Lecture notes will be available on iLearn. **Tutorials** Students will need to register for a tutorial. Tutorials are considered compulsory but no marks are allocated. Tutorials will be available for most, but not all weeks of the session. In weeks where there aren't any live (on-campus or online) tutorials, a recording will be provided to cover the relevant material. The tutorial schedule will be made available on iLearn. Tutorial enrolment or change of tutorial can be made through *eStudent* in the first two weeks of the session. No tutorial changes are allowed after Week 2. Students should attend their allocated tutorial, but exceptions may occur on a one-off basis. That is, where circumstances prevent you from attending your own tutorial in a given week, you may attend an alternative tutorial if room available. Students are expected to complete the '*Tutorial Questions*' as a self-directed study activity before attending a tutorial. Additional learning support will be available in tutor consultation times.
Required Text:	The required textbook is '*Fundamentals of Futures and Options Markets*', John C. Hull, Sirimon Treepongkaruna, Richard Heaney, David Pitt and David Colwell, Pearson, 2014 This is available for purchase online from www.booktopia.com.au/coop and a copy will be available in the closed reserve section of the Macquarie Library.
Unit Web Page:	The web page for this unit can be found at https://ilearn.mq.edu.au/ It is the responsibility of students to visit the unit regularly. Course material is available on the learning management system (iLearn). Lecture notes, tutorial solutions, unit announcements, and other reference materials will be posed to this site throughout the session.

Unit Schedule

Please refer to iLearn.

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (https://policies.mq.edu.au). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- Academic Appeals Policy
- Academic Integrity Policy

- Academic Progression Policy
- Assessment Policy
- Fitness to Practice Procedure
- Assessment Procedure
- Complaints Resolution Procedure for Students and Members of the Public
- Special Consideration Policy

Students seeking more policy resources can visit Student Policies (https://students.mq.edu.au/support/study/policies). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

To find other policies relating to Teaching and Learning, visit Policy Central (https://policies.mq.edu.au) and use the search tool.

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/admin/other-resources/student-conduct

Results

Results published on platform other than eStudent, (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in eStudent. For more information visit ask.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Academic Integrity

At Macquarie, we believe academic integrity – honesty, respect, trust, responsibility, fairness and courage – is at the core of learning, teaching and research. We recognise that meeting the expectations required to complete your assessments can be challenging. So, we offer you a range of resources and services to help you reach your potential, including free online writing and maths support, academic skills development and wellbeing consultations.

Student Support

Macquarie University provides a range of support services for students. For details, visit http://students.mq.edu.au/support/

The Writing Centre

The Writing Centre provides resources to develop your English language proficiency, academic writing, and communication skills.

- Workshops
- Chat with a WriteWISE peer writing leader
- Access StudyWISE
- Upload an assignment to Studiosity

- Complete the Academic Integrity Module

The Library provides online and face to face support to help you find and use relevant information resources.

- Subject and Research Guides
- Ask a Librarian

Student Services and Support

Macquarie University offers a range of Student Support Services including:

- IT Support
- Accessibility and disability support with study
- Mental health support
- Safety support to respond to bullying, harassment, sexual harassment and sexual assault
- Social support including information about finances, tenancy and legal issues

Student Enquiries

Got a question? Ask us via AskMQ, or contact Service Connect.

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the Acceptable Use of IT Resources Policy. The policy applies to all who connect to the MQ network including students.